

Notice of Allowability

Application No.

09/738,310

Examiner

Clemence Han

Applicant(s)

LEE, KANG-PHIL

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/30/2004.
2. ☒ The allowed claim(s) is/are 1, 3-9, 11-15, 17-23 and 25-34, now renumbered 1-30 respectively.
3. ☒ The drawings filed on 30 December 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Allowable Subject Matter

1. Claim 1, 3-9, 11-15, 17-23 and 25-34 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The present invention is directed to a channel associated signaling processing apparatus which reformats the signaling data streams into report data. The closest prior art, Sproat et al. (US 6,778,503) teaches a channel associated signaling processing apparatus.

Sproat, however, fails to teach CAS signaling processing unit outputs a busy signal to the CPU upon receiving the start signal, and maintains the busy signal until the data streams from each of the framers has been processed. These features are claimed in the independent claim 1 and render it allowable.

Sproat, also, fails to teach a stream selector coupled to receive the signaling data streams synchronized with a system clock from the plurality of framers, and output an ordered signaling data bit stream; a signaling processing unit, coupled to receive and store the data bit stream outputted from the stream selector, and convert the received data into a report format; a CPU interface to provide an interface between the CPU and the signaling processing unit; and an address generation circuit to generate a write address of the CM in accordance with an

address increase signal outputted from the signaling processing unit. These features are claimed in the independent claim 4 and render it allowable.

Sproat, also, fails to teach a number of E1 links is 21, and the CPU interface activates the signaling processing unit in response to the start signal. These features are claimed in the independent claim 11 and render it allowable.

Sproat, also, fails to teach the CPU interface outputs a busy signal to the CPU during signaling data processing by the signaling processing unit, and wherein the start signal outputted from the CPU is ignored during when the busy signal is outputted. These features are claimed in the independent claims 12, 17 and render them allowable.

Sproat, also, fails to teach a stream selector coupled to receive the signaling data streams synchronized with a system clock from the plurality of the framers and to output an ordered signaling data stream; and a signaling processor coupled to receive the ordered signaling data streams from the stream selector and to reformat the ordered signaling data into a prescribed number of time slot report data. These features are claimed in the independent claim 13 and render it allowable.

Sproat, also, fails to teach the CAS signaling processing unit reads each channel data from the signaling data stream in accordance with a read clock signal

and reformats the channel data into the report data when a 4 time slot read is completed. These features are claimed in the independent claim 18 and render it allowable.

Sproat, also, fails to teach the signaling processing unit outputs a link number increase signal to the stream select unit when processing of one link is completed, and then receives the signaling data stream of the next link. These features are claimed in the independent claim 20 and render it allowable.

Sproat, also, fails to teach the communication circuit links comprise one of E1 links and T1 links, and wherein each one of the plurality of framers the signaling data stream from the a corresponding link. These features are claimed in the independent claim 21 and render it allowable.

Sproat, also, fails to teach the plurality of links comprises 21 links. These features are claimed in the independent claim 22 and render it allowable.

Sproat, also, fails to teach a CPU interface receiving a start signal from a CPU, outputting a busy signal to the CPU when the signaling processing unit is processing the output of the stream selector and outputting the control signal to the stream selector and the signaling processing unit. These features are claimed in the independent claims 25 and render it allowable.

Sproat, also, fails to teach the stream selector configured to extract signaling data streams from a plurality of E1 links through a corresponding plurality of framers. These features are claimed in the independent claims 26 and render it allowable.

Sproat, also, fails to teach the signaling processing unit provides a link number increase signal (LNIS) to the stream selector when the processing for one channel link is finished, and receives a signaling data stream for the next channel link from the stream selector in response to the LNIS. These features are claimed in the independent claims 27 and render it allowable.

Sproat, also, fails to teach a plurality of framers, coupled to provide the data stream to the stream selector, a CPU interface, configured to receive a start signal from a CPU and generate the control signal, and a common memory, coupled to receive the write address signal and store the formatted data outputted by the signaling processing unit. These features are claimed in the independent claims 28 and render it allowable.

Sproat, also, fails to teach the CPU outputs the start signal to begin the signaling data processing, the CPU interface ignores signals from the CPU until the signaling data processing completed such that the CPU is free to perform other

tasks. These features are claimed in the independent claims 29 and render it allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C, H

Clemence Han
Examiner
Art Unit 2665

A handwritten signature in black ink, appearing to be 'S. Nguyen', written in a cursive style.

STEVEN NGUYEN
PRIMARY EXAMINER